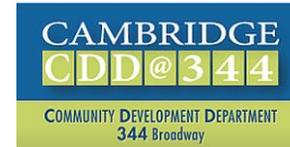


Transportation Roundtable

Cambridge City Council
December 14, 2015



Agenda

Local and regional approach to transportation

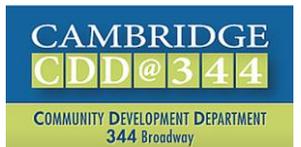
Cambridge transportation policies

Ongoing trends in transportation

Improving our infrastructure

Direction of the Traffic, Parking, and Transportation Department

How the transportation world is changing



Agenda

Local and regional approach to transportation

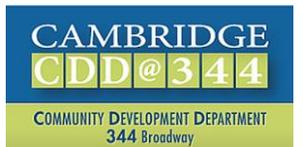
Cambridge transportation policies

Ongoing trends in transportation

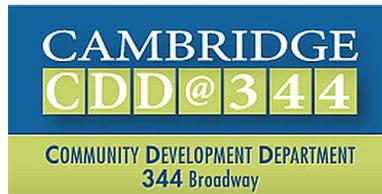
Improving our infrastructure

Direction of the Traffic, Parking, and Transportation Department

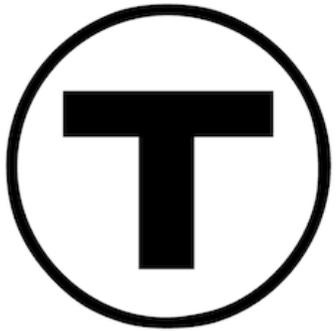
How the transportation world is changing



Local Approach



Regional Approach



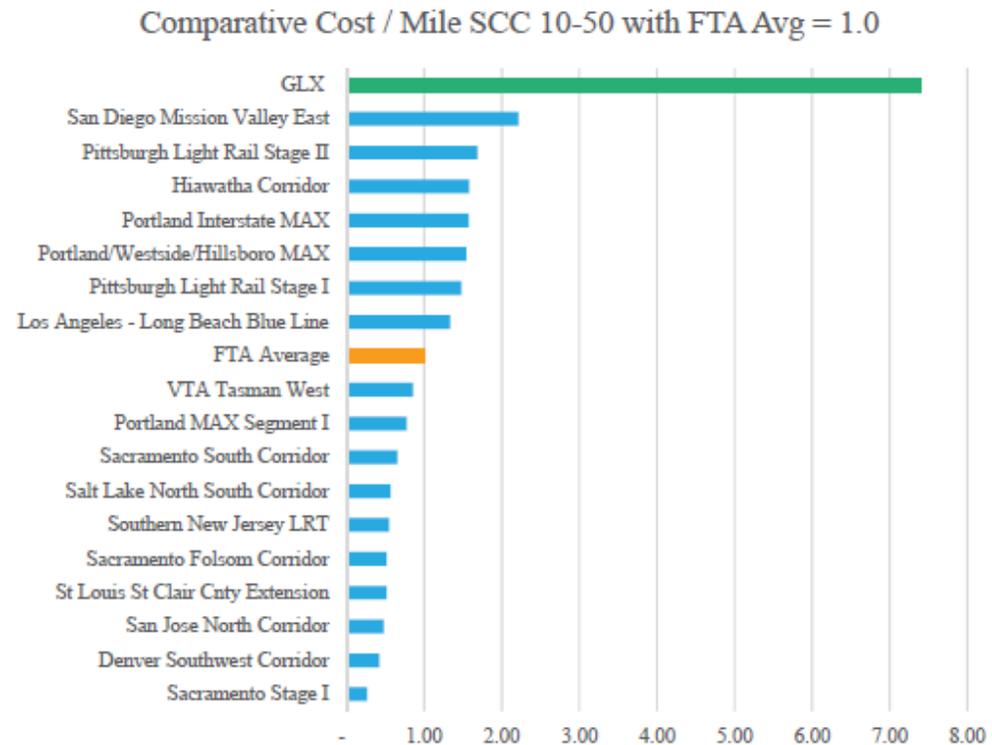
massDOT
Massachusetts Department of Transportation

dcr
Massachusetts



Green Line Extension Update

- ▶ Projected 50% cost increase led to reassessment of entire project
- ▶ CM/GC project delivery has not worked as planned
- ▶ Two options remain on table
 - ▶ Cancel project
 - ▶ Substantially reduce the cost
- ▶ Options for cost reduction that impact Cambridge
 - ▶ Scaled back stations
 - ▶ Changes to Union Square branch
 - ▶ Changes to viaduct and community path design



CAMBRIDGE
CDD@344

COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway

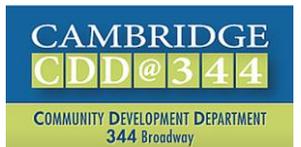


CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



Green Line Extension Update

- ▶ Next steps
 - ▶ Revise design and determine if project will proceed
 - ▶ Determine new project delivery approach
 - ▶ Procure new consultants / contractors
- ▶ Cambridge involvement
 - ▶ Evaluate request for financial contribution (direct and leveraging private partners)
 - ▶ Monitor project status
 - ▶ Lobby for project continuation



Agenda

Local and regional approach to transportation

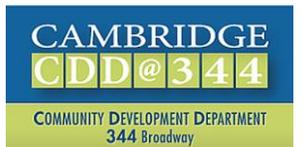
Cambridge transportation policies

Ongoing trends in transportation

Improving our infrastructure

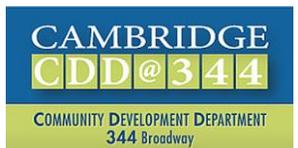
Direction of the Traffic, Parking, and Transportation Department

How the transportation world is changing



Safe and Sustainable Transportation

- ▶ Safety for all modes is paramount
- ▶ Low environmental impacts
 - ▶ Vehicle congestion and air quality lower
 - ▶ Street system aids stormwater goals
- ▶ Strong economy
- ▶ Health living



Safety for All Modes is Paramount



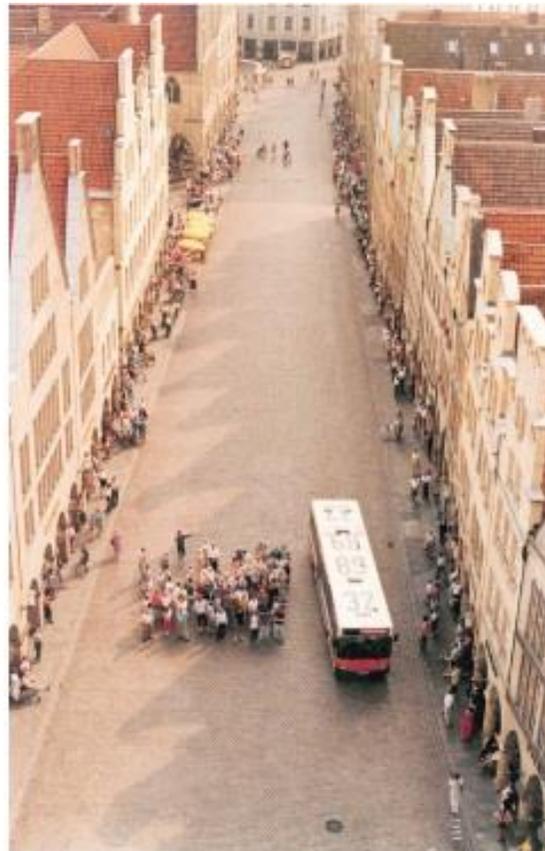
CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



Low Environmental Impact



CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**

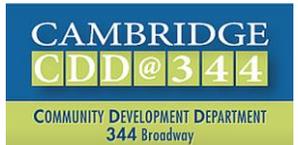


Economic Benefits

TRANSIT FOR A STRONGER ECONOMY



good walking is good business



Healthy Communities



CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway

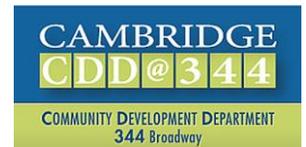
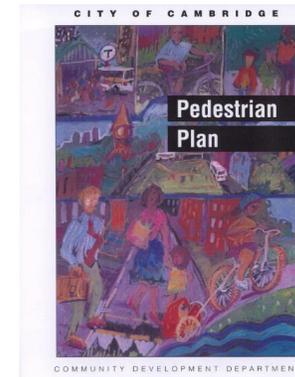
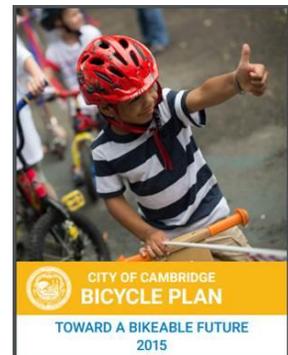
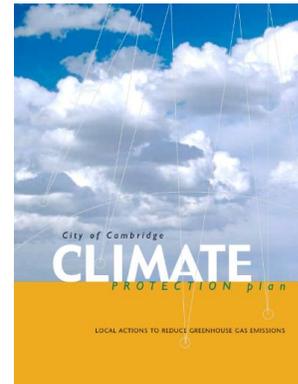
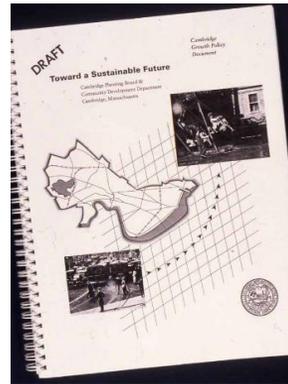


CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



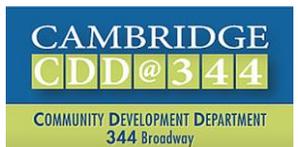
Policies and Strategies

- ▶ Vehicle Trip Reduction Ordinance (VTRO)
- ▶ Parking and Transportation Demand Management (PTDM)



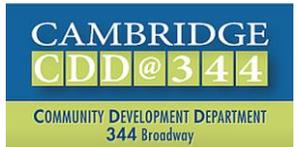
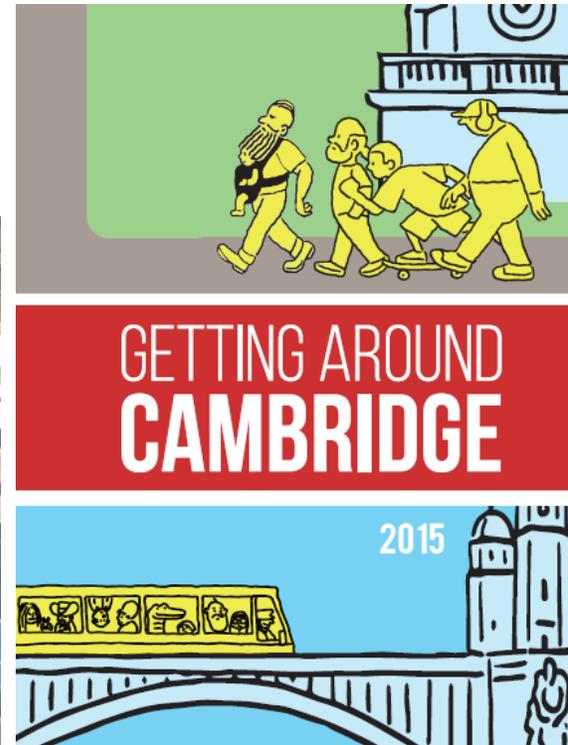
Areas of Focus

- ▶ Outreach and education
- ▶ Reducing the traffic impact of development
- ▶ Adapting infrastructure to enable people of all ages and abilities to travel by foot, bike, and transit; efficiently and safely move people; and meet stormwater retention goals
- ▶ Working regionally to increase transit use and capacity and ensure resiliency of transit and roadway systems

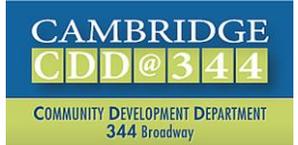


Outreach and Education

- ▶ Written materials
- ▶ Events and classes

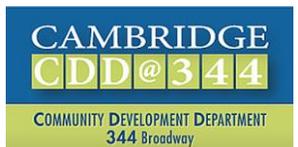


Safe Routes to School



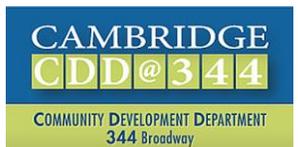
Reducing the Traffic Impact of Development

- ▶ Parking and Transportation Demand Management (PTDM) ordinance
- ▶ Good access for pedestrians, bicyclists, and transit users
 - ▶ Special Permit Review
- ▶ Good parking facilities for cyclists and those who rideshare



Adapting our Infrastructure

- ▶ Redesigning streets to enable people of all ages to travel both safely and conveniently by foot, bike, and transit (Complete Streets)
 - ▶ DPW Five Year Plan for Street & Sidewalk Reconstruction
 - ▶ Stormwater Management Strategy



Expanding our Infrastructure

- ▶ New technologies make transit use easier through apps and real-time displays
- ▶ Piloting of transit priority treatments



CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway

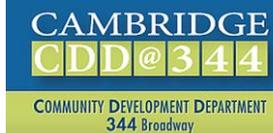


CAMBRIDGE
DEPARTMENT
OF PUBLIC
THE WORKS



Working Regionally to Increase Transit Use and Capacity

- ▶ Planning for new service
- ▶ Strategies for additional funding for both state of good repair and new service



Agenda

Local and regional approach to transportation

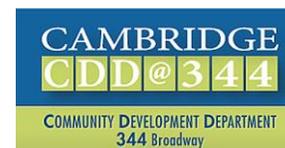
Cambridge transportation policies

Ongoing trends in transportation

Improving our infrastructure

Direction of the Traffic, Parking, and Transportation Department

How the transportation world is changing



Trends: Awards and Recognition

- ▶ America's Most Walkable City

Source: *Prevention Magazine*, 2008, 2012

- ▶ Gold Level Bicycle Friendly Community Award

Source: *League of American Bicyclists*, 2013

- ▶ Massachusetts Excellence in Commuter Options (ECO) Pinnacle Award

Source: *MassCommute*, 2014

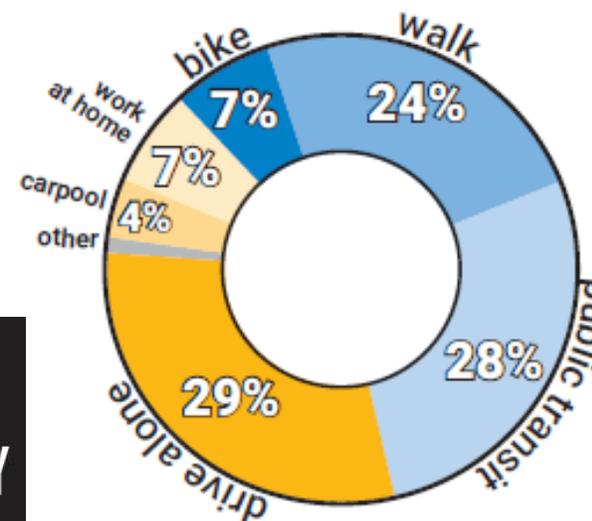
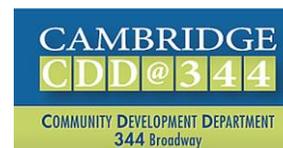


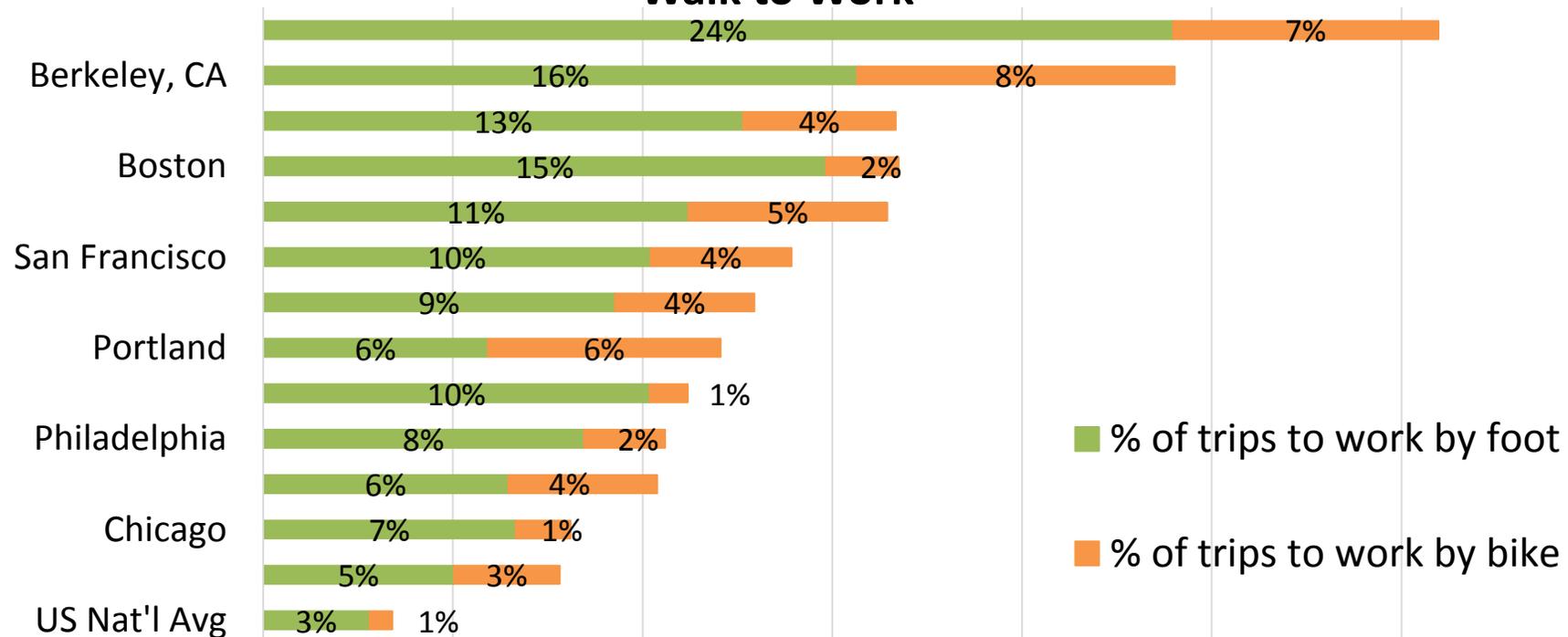
Figure 3.5:
Mode Split for Cambridge Residents
Commuting to Work

2011-2013 American Community Survey



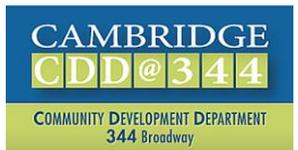
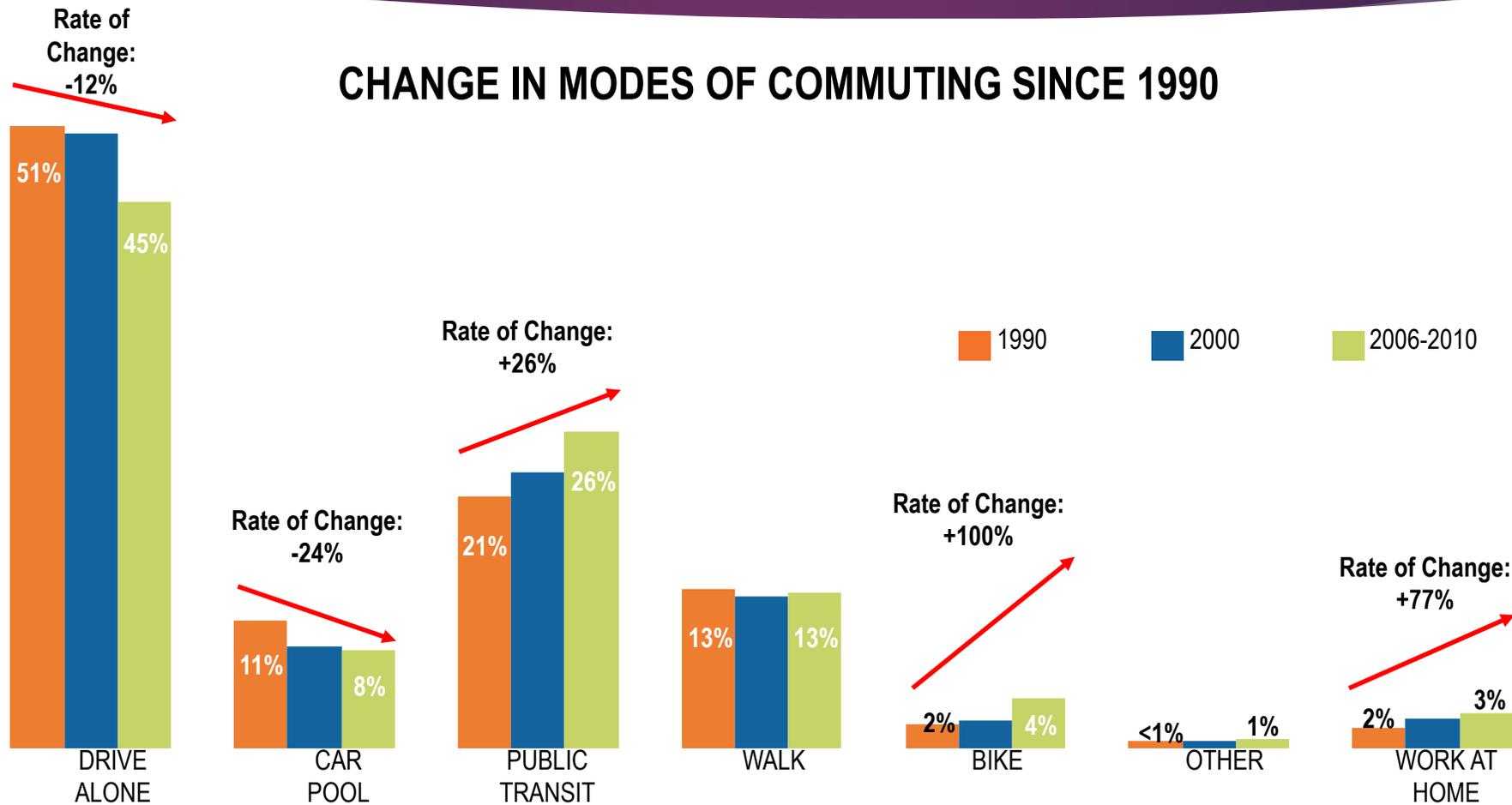
Trends: Sustainable Commuting

Residents Who Bicycle or Walk to Work



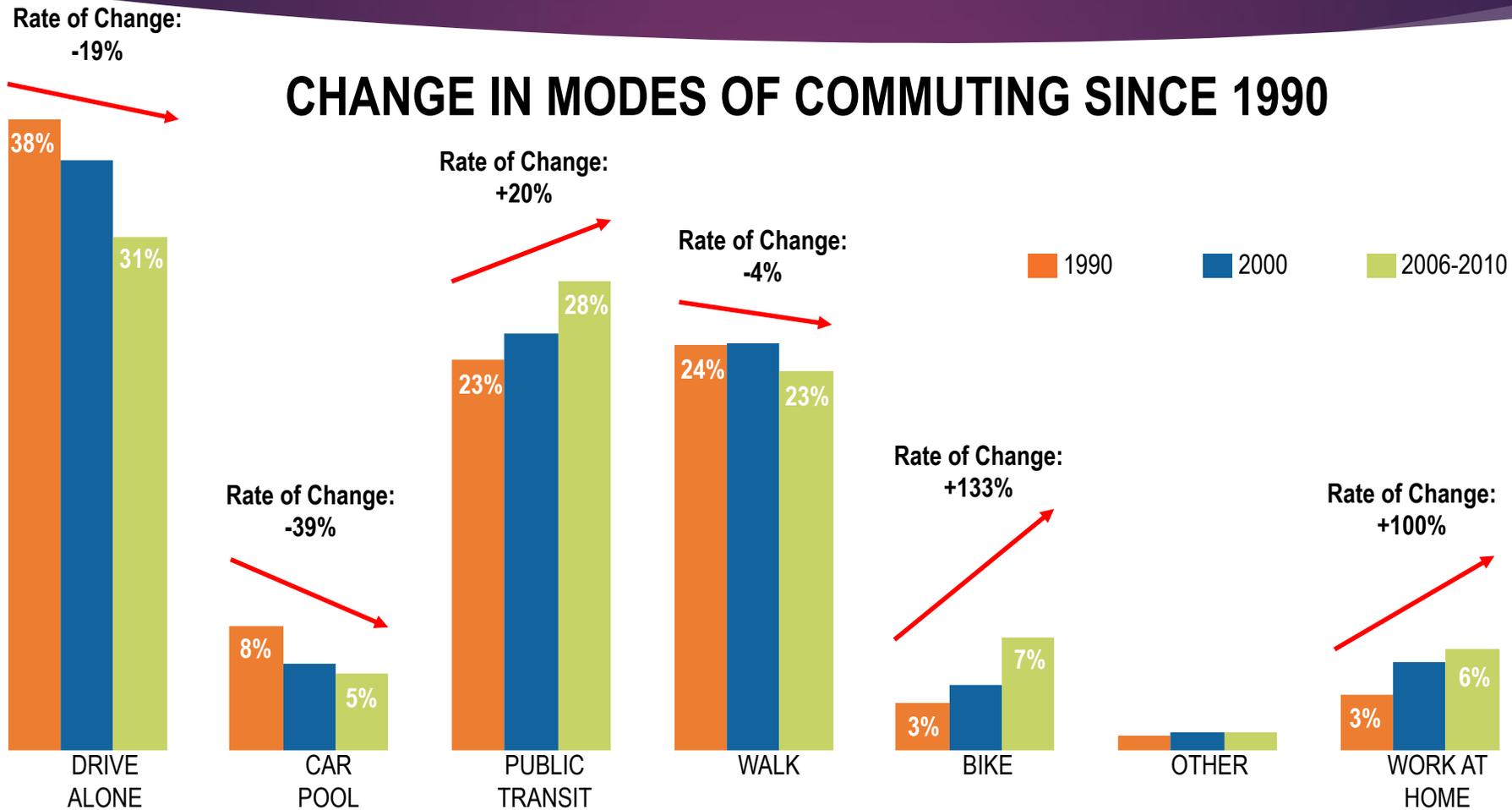
Trends: Commuting to Cambridge

CHANGE IN MODES OF COMMUTING SINCE 1990



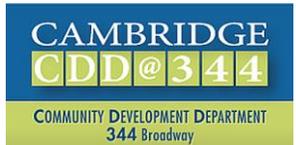
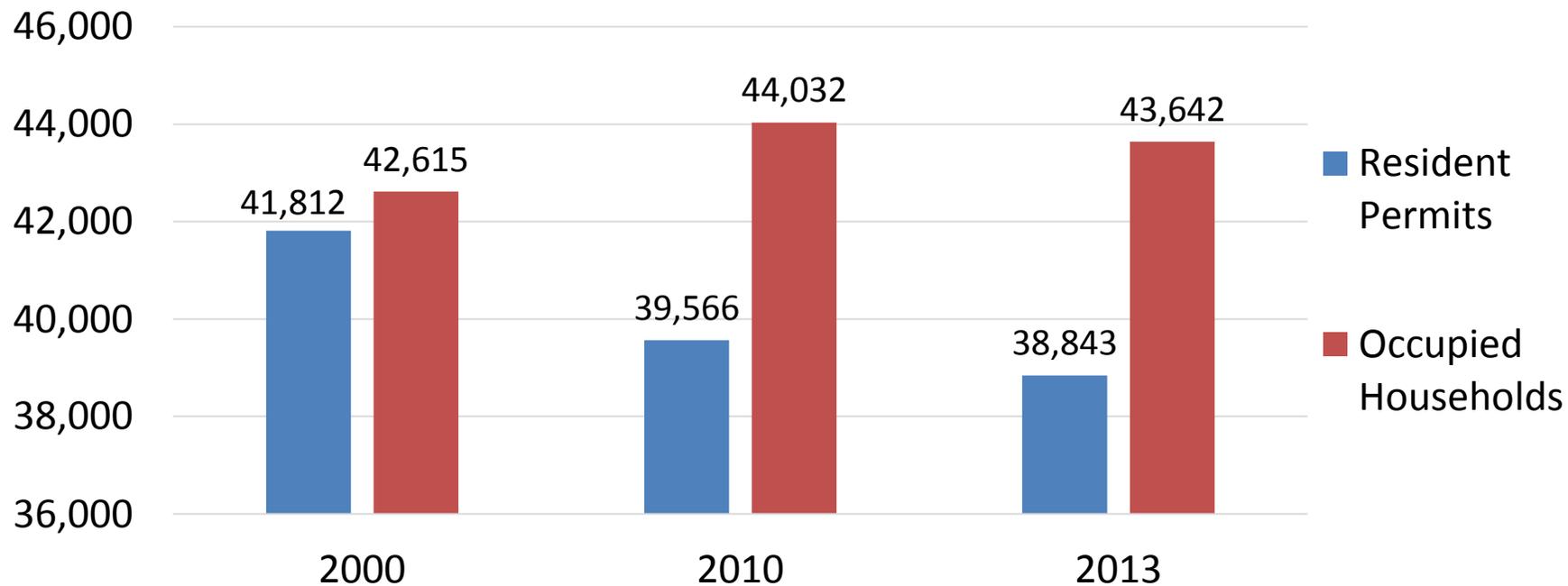
Trends: Commuting from Cambridge

CHANGE IN MODES OF COMMUTING SINCE 1990



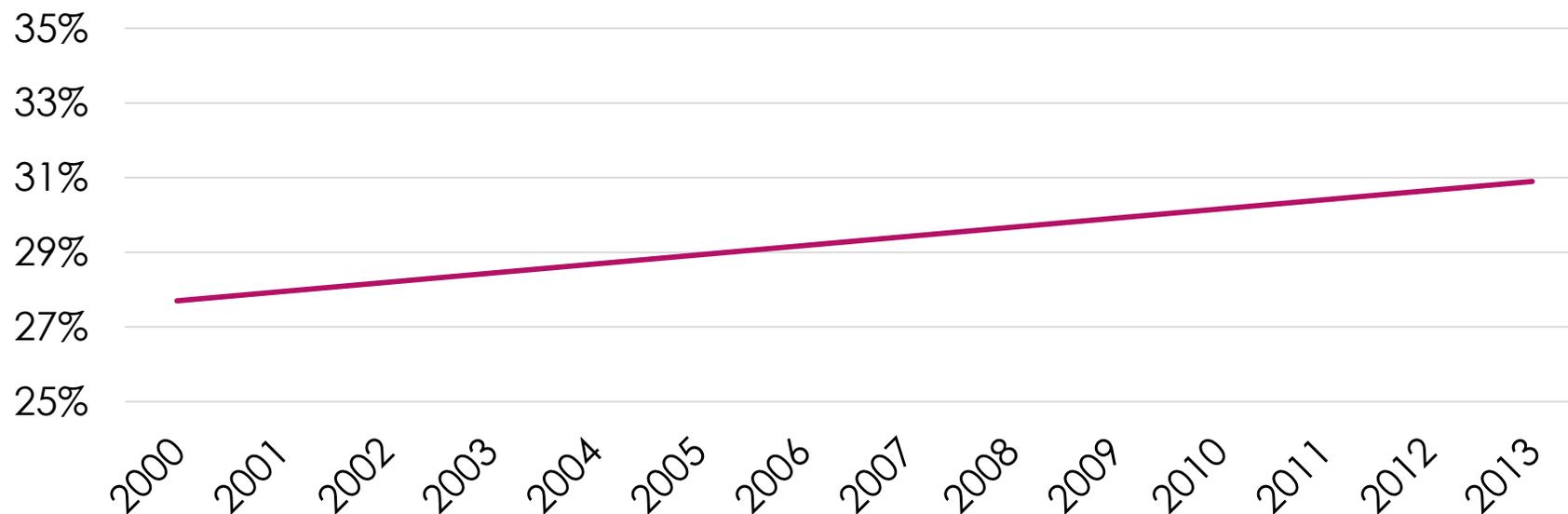
Trends: Parking Permits

Resident Parking Permits and Occupied Households



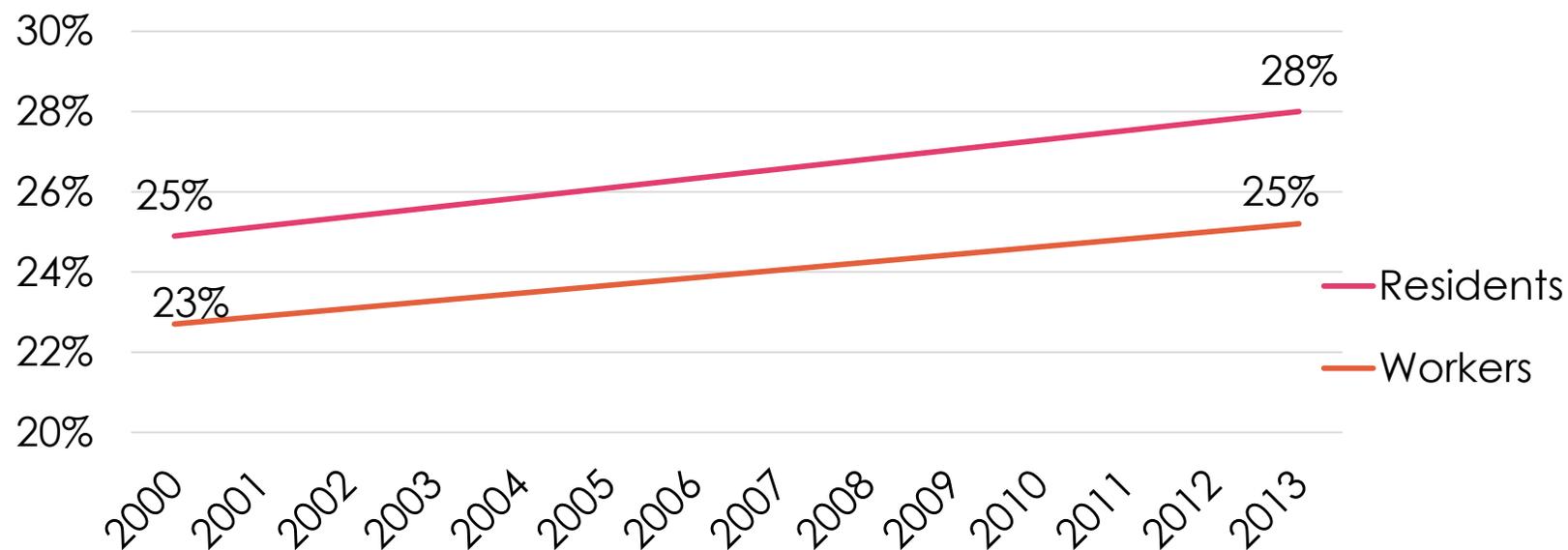
Trends: Vehicle Ownership

Households Without Vehicles



Trends: Public Transit Ridership

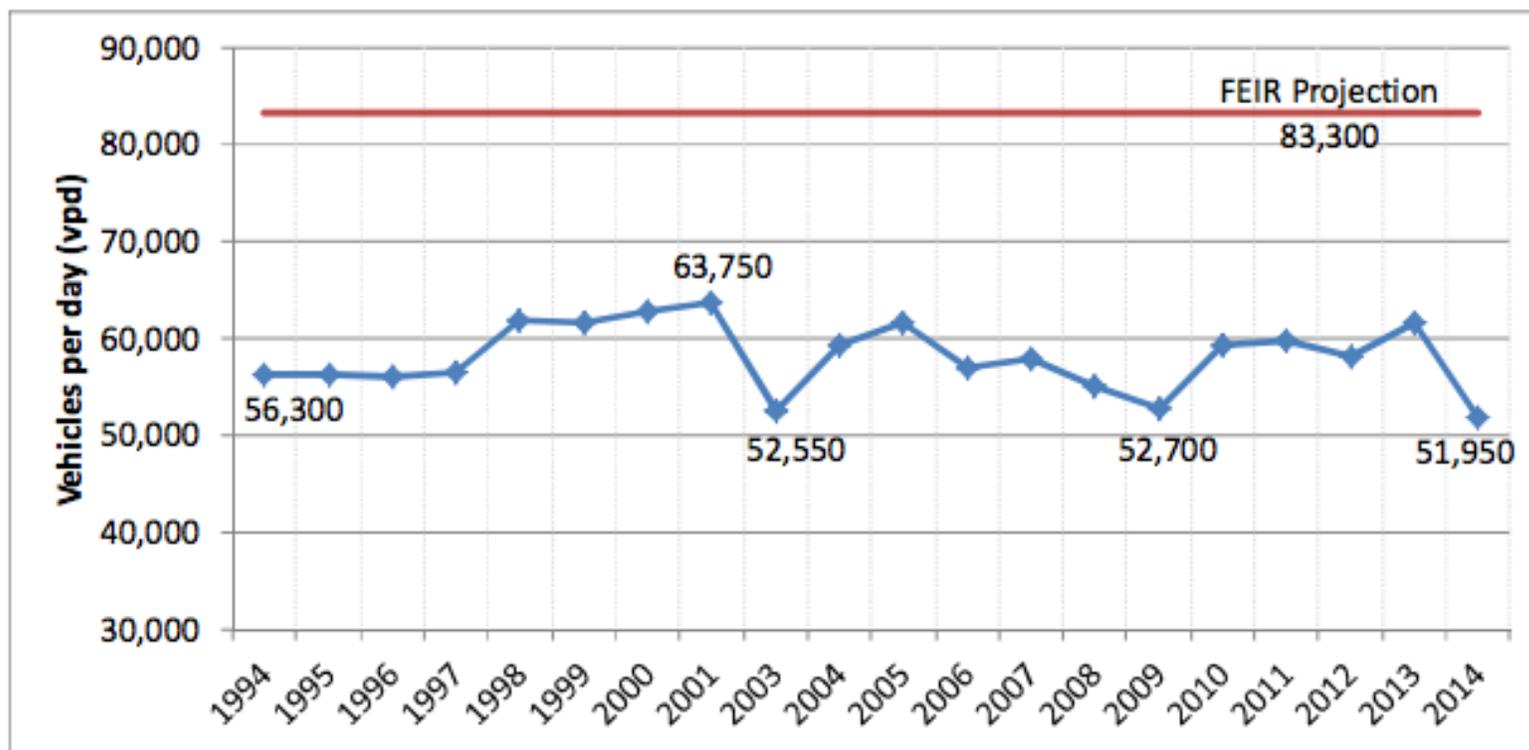
Commuters Using Public Transit to Travel To and From Cambridge



Trends: Daily Traffic Volumes

Land Boulevard/O'Brien Highway

Cordon Average Annual Weekday Traffic Volume 1994-2014



Agenda

Local and regional approach to transportation

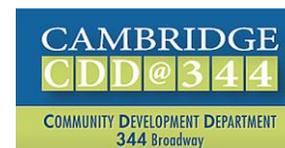
Cambridge transportation policies

Ongoing trends in transportation

Improving our infrastructure

Direction of the Traffic, Parking, and Transportation Department

How the transportation world is changing



Five Year Sidewalk and Street Reconstruction Plan



5 YEAR PLAN | TABLE OF CONTENTS

The Five Year Sidewalk and Street Reconstruction Plan identifies the streets and sidewalks that are anticipated to be reconstructed each year for the next five years. This document has been sorted into five sections as outlined below.



Pedestrian Safety



Landscape Enhancements



Bicycle Accommodations



Roadway Improvements



Accessibility Upgrades

CAMBRIDGE
CDD@344

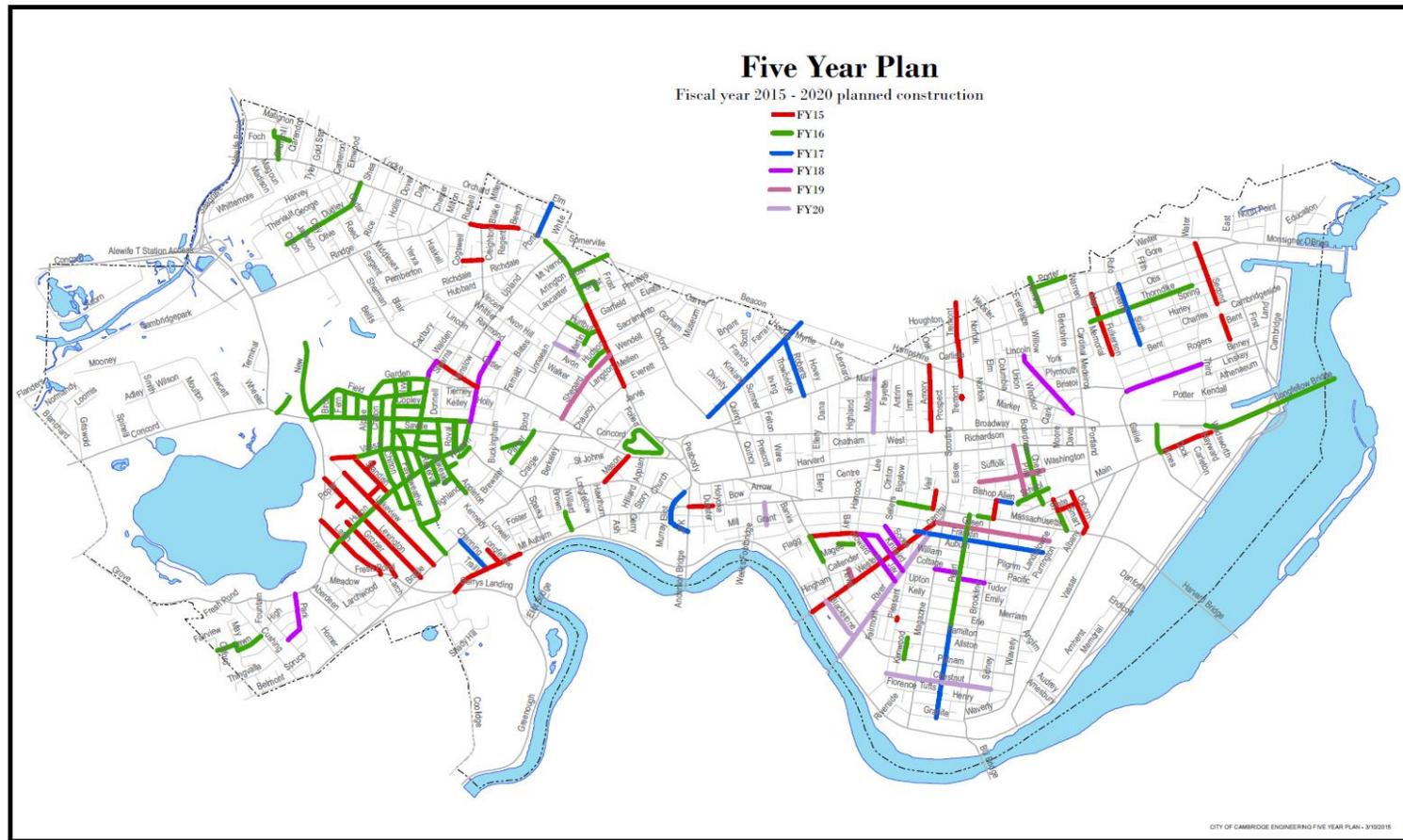
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
WORKS



Five Year Sidewalk and Street Reconstruction Plan



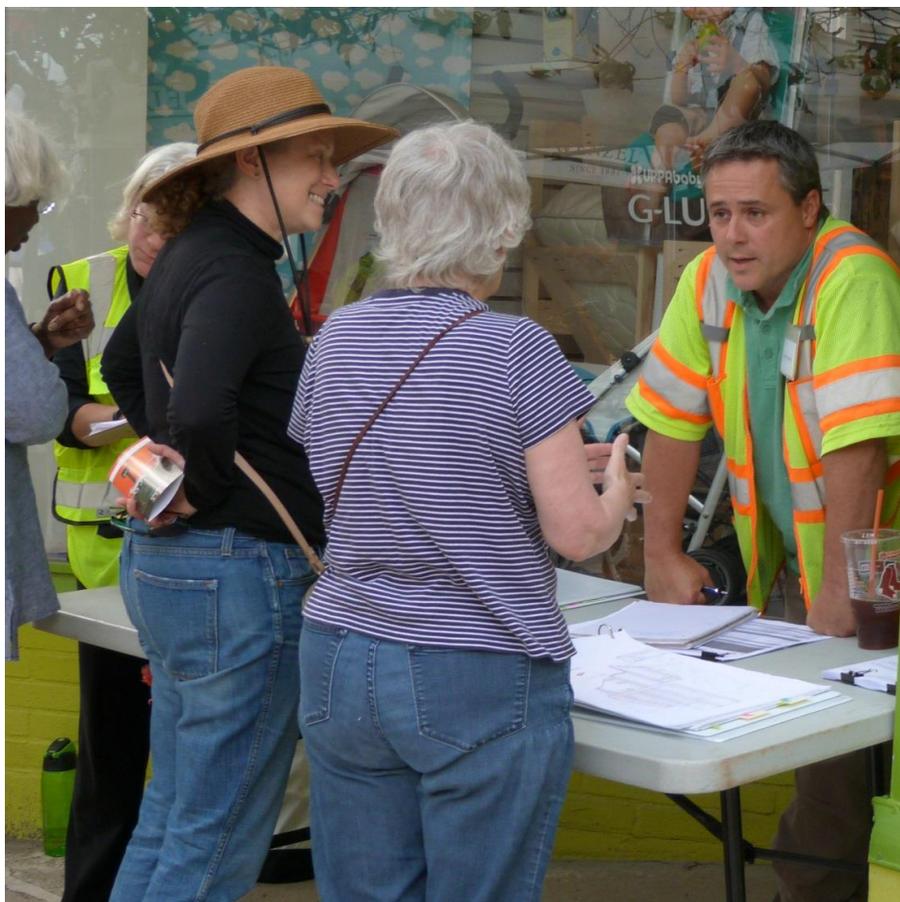
CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



THE WORKS
CAMBRIDGE DEPARTMENT OF PUBLIC WORKS



Design and Construction Community Meetings and Events



CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



Western Avenue Infrastructure Improvements



BEFORE

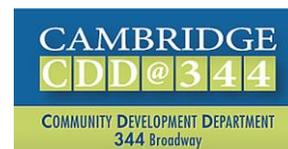
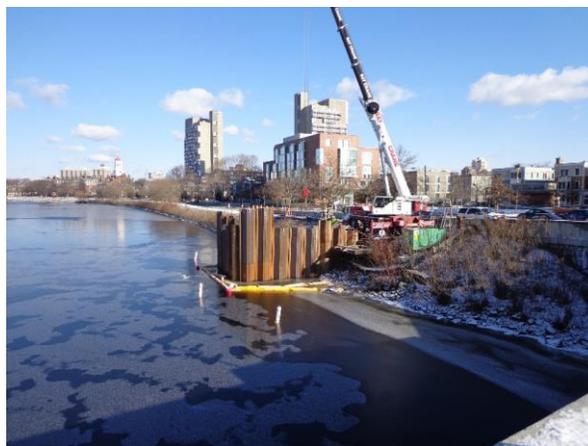


AFTER

Photo Credit: Nichol Figuelredo - www.Capital-Strategic-Solutions.com



Western Avenue During Construction



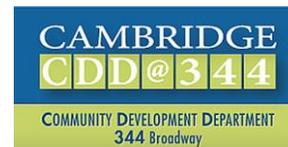
Western Avenue Project Completion



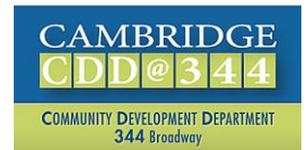
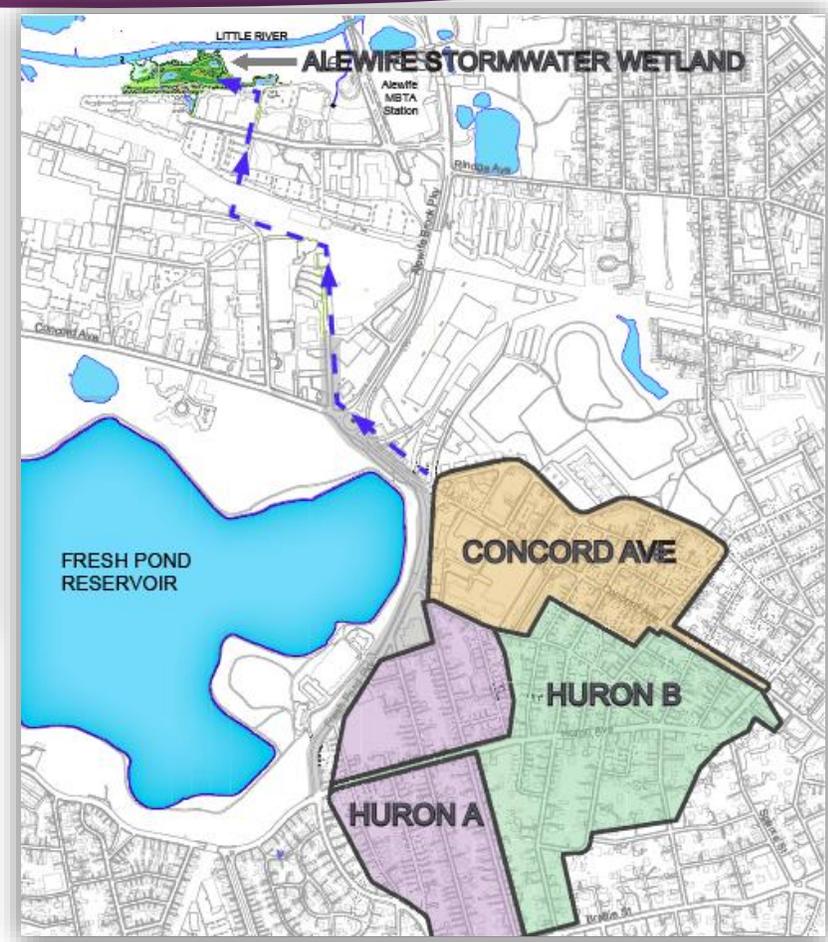
**WESTERN AVENUE –
LOOKING WEST**



**CRONIN
PARK**



Alewife Sewer Separation Long-term CSO Control



Alewife Sewer Separation Stormwater Wetland



CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



Alewife Sewer Separation During Construction



CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



Alewife Sewer Separation Project Completion



CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



The Port Infrastructure Project Coming Soon

DEPARTMENT OF PUBLIC WORKS - UPCOMING IMPROVEMENTS IN AREA 4

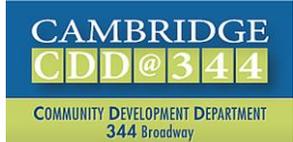
ST Stormwater tanks (over 1 million gallons of storage) in the City's Parking Lot #6 and Clement Morgan Park to reduce flooding in the Area 4 neighborhood.

- Recently constructed projects have reduced flooding 30% in a 10-year, 24-hour storm event
- Once the stormwater tanks are completed, there will be an
 - 80% reduction in flooding during a 10-year, 24-hour storm event
 - 80% reduction in flooding during a 25-year, 24-hour storm event

— Street and sidewalk improvements.
— Additional surface amenities - traffic calming, plantings and street trees, as determined through community process

Schedule:
 Fall 2015 - Survey Residents - Initial Input
 Winter 2015 - Fall 2016 - Community Design Process
 2016 - 2020 Construction in phases

For More Information:
 Katherine Walkins, City Engineer
 kwalkins@cambridgema.gov / 617-349-4751



Kendall Square Main Street



45

CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



Chapter 90 Projects Broadway

Pre-Existing



Constructed



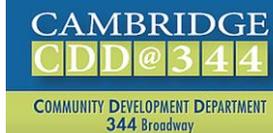
CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



Chapter 90 Projects Longfellow Road



Five Year Sidewalk and Street Reconstruction Plan



5 YEAR PLAN | TABLE OF CONTENTS

The Five Year Sidewalk and Street Reconstruction Plan identifies the streets and sidewalks that are anticipated to be reconstructed each year for the next five years. This document has been sorted into five sections as outlined below.



Pedestrian Safety



Landscape Enhancements



Bicycle Accommodations



Roadway Improvements



Accessibility Upgrades

CAMBRIDGE
CDD@344

COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



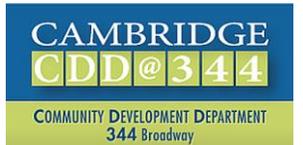
CAMBRIDGE
DEPARTMENT
OF PUBLIC
THE WORKS



From 1999-2014, Cambridge's records show that the number of crashes of all types in the city has decreased.

Crash Database

- ▶ Sources
 - ▶ MassDOT/Mass RMV
 - ▶ Cambridge Police
- ▶ Query for crashes involving ped and bike
 - ▶ Pull individual reports to discover common causes of crashes at problem locations



Bike Count and Crash Trend



CAMBRIDGE
CDD@344

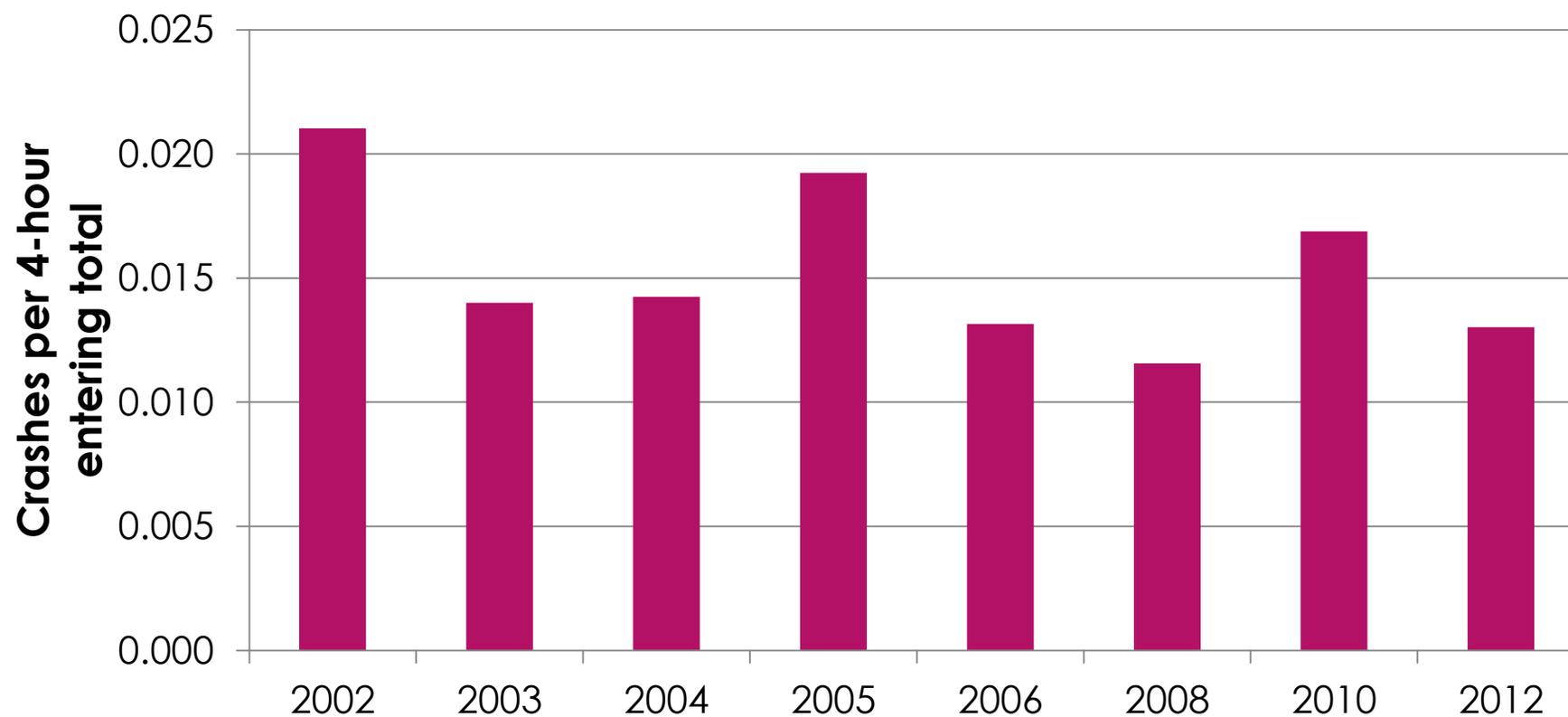
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



Crash Rate Trend



CAMBRIDGE
CDD@344

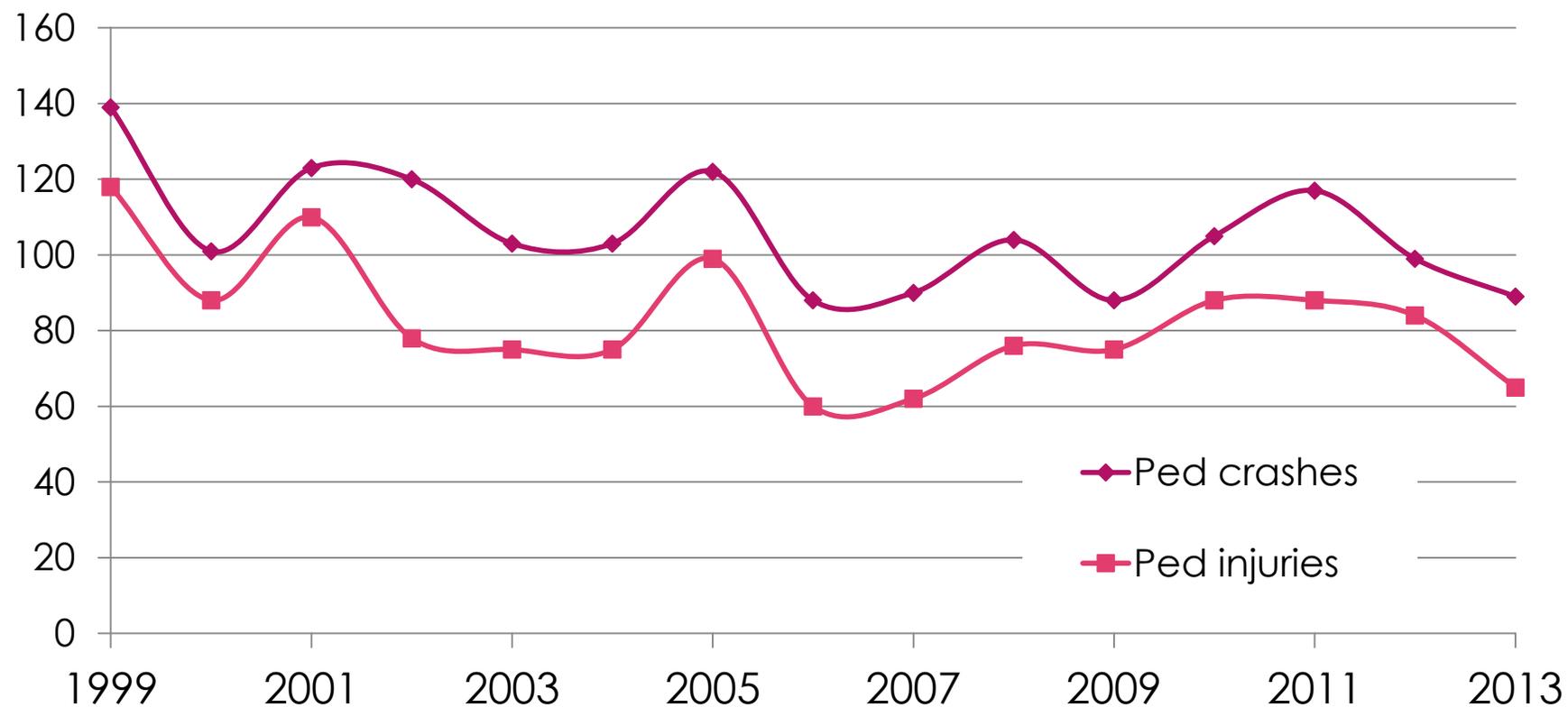
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



Pedestrian Crash Trends



CAMBRIDGE
CDD@344

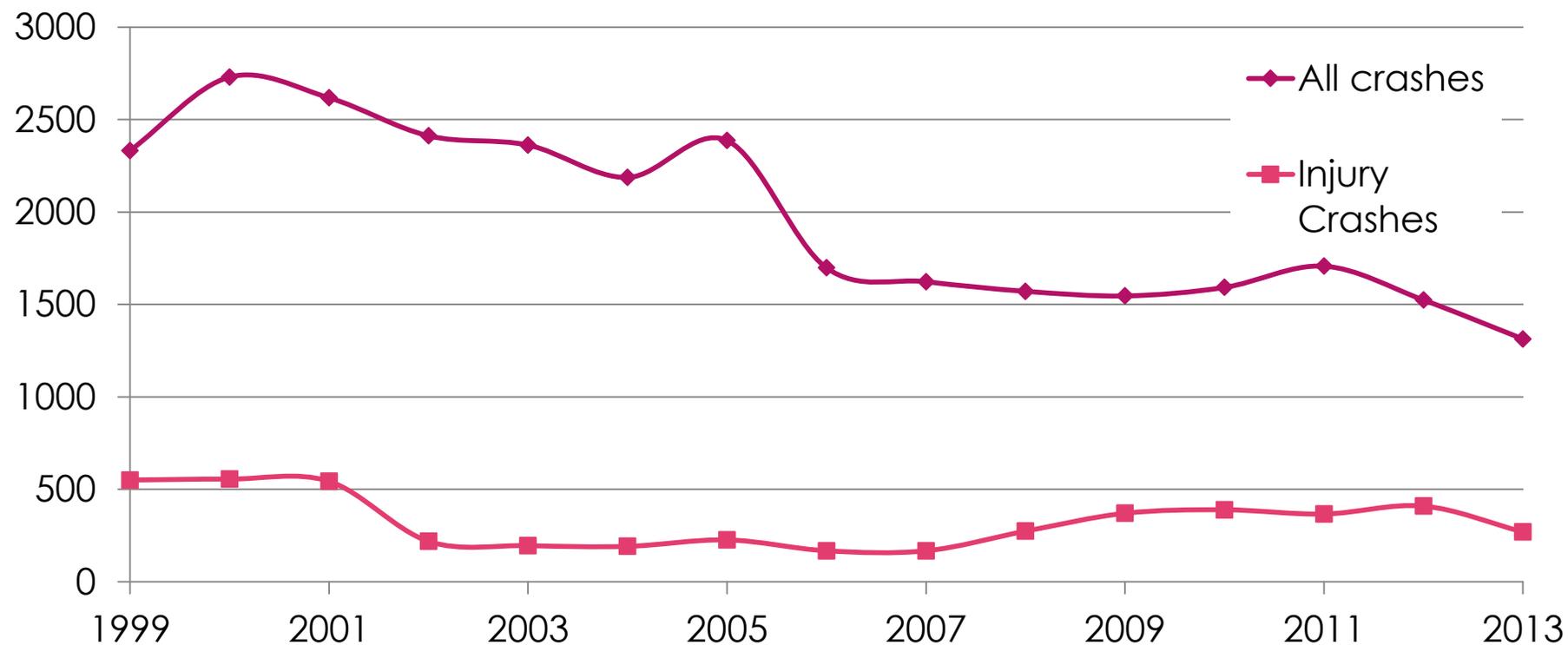
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



Total Crash Trends



CAMBRIDGE
CDD@344
 COMMUNITY DEVELOPMENT DEPARTMENT
 344 Broadway



CAMBRIDGE
 DEPARTMENT
 OF PUBLIC
**THE
 WORKS**



Agenda

Local and regional approach to transportation

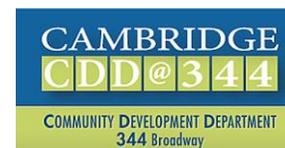
Cambridge transportation policies

Ongoing trends in transportation

Improving our infrastructure

Direction of the Traffic, Parking, and Transportation Department

How the transportation world is changing

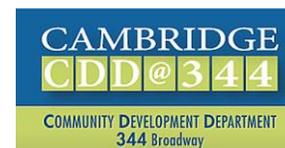


Future Direction of Traffic, Parking, and Transportation

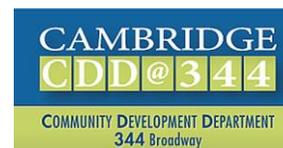
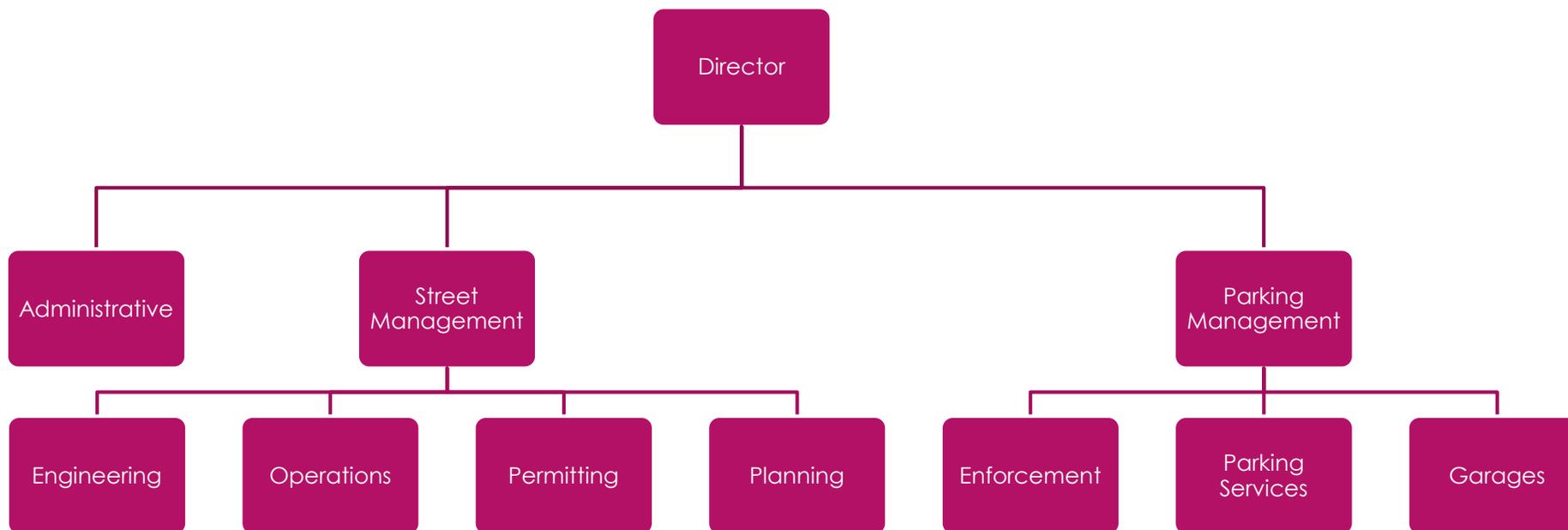
Organizational Changes

Strategic Priorities

Upcoming Initiatives

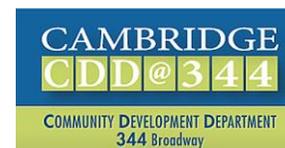


TP&T Organizational Chart



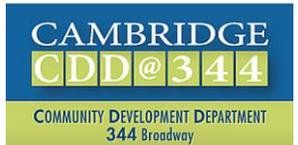
Strategic Priorities

- ▶ Customer Service
 - ▶ New parking payment options
 - ▶ Permitting upgrades
 - ▶ Customer service training
- ▶ Technology
 - ▶ Smart meters/pay-by phone
 - ▶ Transit signal priority
 - ▶ Signal communications
- ▶ Operational Effectiveness
- ▶ Sustainability



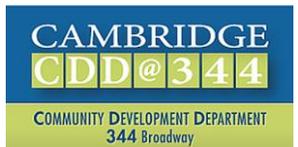
Strategic Priorities

- ▶ Operational Effectiveness
 - ▶ Upgraded work order and asset management system
 - ▶ Enhanced snow operations
 - ▶ Staff training
- ▶ Sustainability
 - ▶ Garage initiatives
 - ▶ Materials/inventory management
 - ▶ Continue to offer high quality employment



Upcoming Initiatives

- ▶ Pay-by-Phone
 - ▶ Pilot in Harvard Square area—Spring 2016
 - ▶ Expansion based on results of pilot implementation
- ▶ Pilot of Smart Meters
 - ▶ Schedule TBD
 - ▶ Need to understand costs and benefits vs. pay-by-phone
- ▶ Transit Signal Priority
 - ▶ Working on pilot with MBTA
 - ▶ Signal communication upgrades
- ▶ First Street Garage capital improvements



Agenda

Local and regional approach to transportation

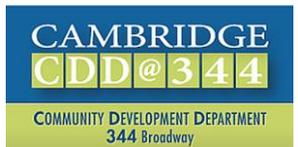
Cambridge transportation policies

Ongoing trends in transportation

Improving our infrastructure

Direction of the Traffic, Parking, and Transportation Department

How the transportation world is changing



Focus on Safety



CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



Healthy and Active Living



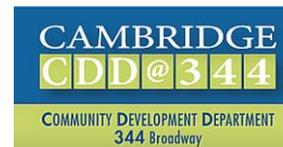
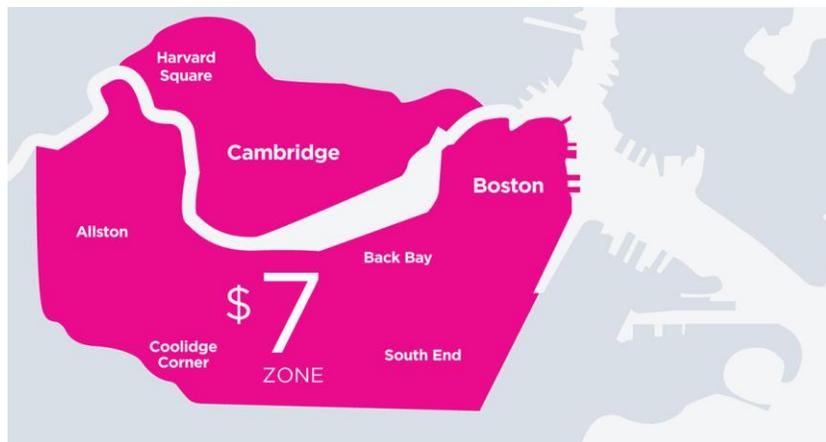
CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**

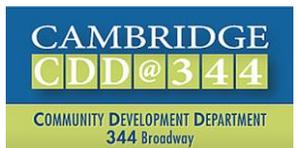


Sharing Economy & Network Companies



Freight/Goods Movement

- ▶ Local issues related to curb management, truck routing, and interaction with other modes
- ▶ Regional issues related to vehicle size, truck routing, and state/municipal coordination
- ▶ Requires regional partnerships with both the public and private sectors



New Mobility Devices



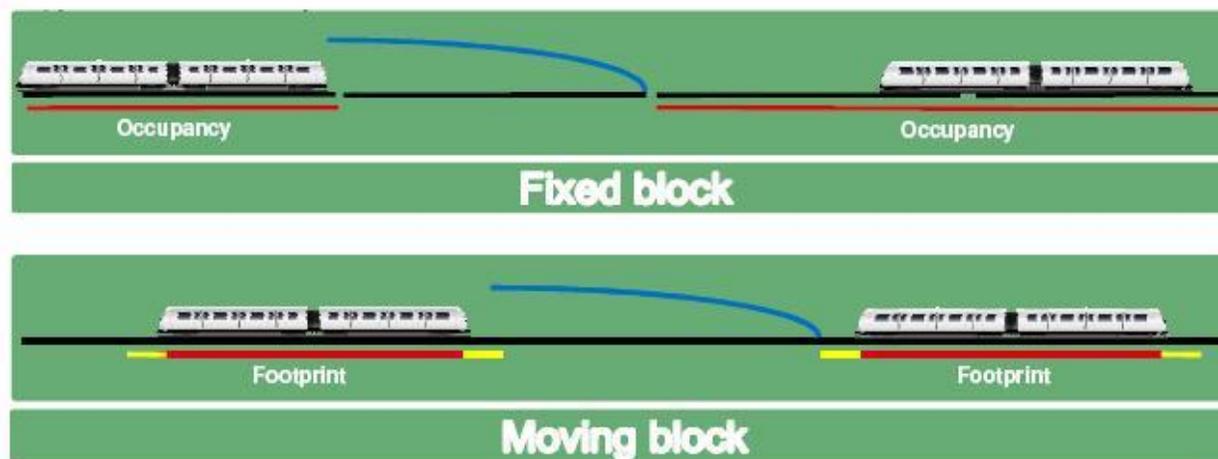
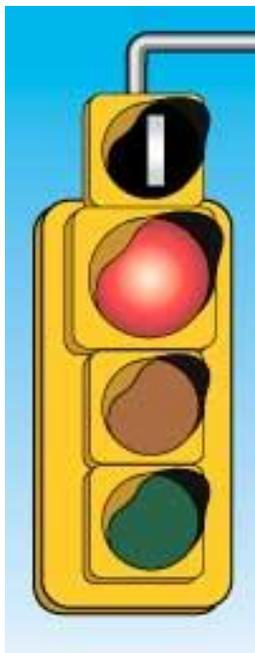
CAMBRIDGE
CDD@344
COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**



Enhancing Transit



CAMBRIDGE
CDD@344

COMMUNITY DEVELOPMENT DEPARTMENT
344 Broadway



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**

